PATENT
Attorney Docket No. 05725.1420-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	)	
	)	
Véronique FERRARI et al.	)	Group Art Unit: 1611
	)	
Application No.: 10/529,264	)	Examiner: LOVE, Trevor M.
	)	
Filed: December 19, 2005	)	Confirmation No.: 2132
	)	
For: NON-TRANSFER COSMETIC COMPOSITION COMPRISING A SEQUENCED POLYMER	)	**VIA EFS-WEB**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION UNDER 37 C.F.R. § 1.132

1. I, Céline FARCET, do hereby make the following declaration:

2. I am a French citizen, residing at 2 Allée de Rosny 93320 Les Pavillons sous Bois, France.

3. I have been awarded a degree in Chemistry from University of Pierre et Marie Curie, Paris VI in 2002.

4. I am in charge of a Polymers for Make-Up at L'Oréal and have experience working with block polymers since 1999.

5. I understand the rejections made in the Office Action dated January 28, 2010, in Application No. 10/529,264.

6. Given my education and experience, particularly in the area of block polymers, I consider myself able to make the following statements based on experiments conducted by me or under my supervision:

COMPARATIVE EXPERIMENTS

Polymer according to the disclosure

7. A polymer according to the disclosure was prepared using 105 g of isobornyl acrylate, 105 g of isobornyl methacrylate and 90 g of isobutyl acrylate (or 35/35/30% by weight).

8. 105 g of isobornyl acrylate and 105 isobornyl methacrylate, with 1.8 g of 2,5-bis(2-ethylhexanoylperoxy)-2,5-dimethylhexane (TRIGONOX® 141 from Akzo Nobel) and 110 g of isododecane, were added over 1 hour to 100 g of isododecane at 90°C. The mixture was maintained at 90°C for 1 hour 30 minutes.

9. 90 g of isobutyl acrylate, 90 g of isododecane and 1.2 g of 2,5-bis(2-ethylhexanoylperoxy)-2,5-dimethylhexane were then introduced into the above mixture, still at 90°C, over 30 minutes. The mixture was maintained at 90°C for 3 hours and was then cooled.

10. A solution containing 50% polymer active material in isododecane was obtained. The polymer had a first poly(isobornyl acrylate/isobornyl methacrylate) sequence having a Tg of 110°C, a second poly(isobutyl acrylate) sequence having a Tg of -20°C, and an intermediate sequence that was an isobornyl acrylate/isobornyl methacrylate/isobutyl acrylate statistical polymer. The weight average molecular weight (Mw) was 151,000, the number average molecular weight (Mn) was 41,200, and the polydispersity index (PDI) was 3.66.

Comparative polymer

11. A comparative polymer was prepared in two steps: synthesis of a poly(isobutyl acrylate) block, then synthesis of a second poly(isobornyl acrylate-co-isobornyl methacrylate) block.

12. In the first step, 150 g of isobutyl acrylate was placed in a round-bottom flask, then 220µl of initiator (ethyl 2-bromoisobutyrate) and 313µl of ligand (PMDETA or pentamethyldiethylene triamine). The catalyst was added (215mg of CuBr(I)) and left under argon flow in an oil bath at 90°C, for 6 hours.

13. To isolate the product of the first step, the solution was poured into 4 liters of a 50/50 water/ethanol mixture, in which the polymer precipitated. The water/ethanol solution was discarded and the polymer was recovered, then redissolved in THF. The solution was filtered on neutral alumina, then the solvent was evaporated under reduced pressure. The resulting poly(isobutyl acrylate) polymer had a weight average molecular weight of 42,000.

14. In the second step, 9.6 g of the polymer prepared in step 1 was placed in a round-bottom flask under argon, and 32.5 ml of butyl acetate were added. It was agitated until completely dissolved.

15. 20 g of isobornyl methacrylate and 20 g of isobornyl acrylate were added, followed by the ligand (0.048 ml). The catalyst (33 mg of CuBr(I)) was added, and the solution was left under argon flow in an oil bath at 90°C for 52 hours.

16. The solution was then poured into 4 liters of a 50/50 water/ethanol mixture, in which the polymer precipitated. The water/ethanol solution was discarded and the polymer was recovered, then redissolved in THF. The solution was filtered on

neutral alumina, then filtered on paper and the polymer obtained was dried. A light yellow powder was obtained. The resulting poly(isobutyl acrylate)-b-poly(isobornyl acrylate-co-isobornyl methacrylate) polymer had a weight average molecular weight of 100,000.

17. The characteristics of the polymer according to the disclosure and the comparative polymer are summarized below:

TABLE I

	Polymer according to the disclosure	Comparative polymer
Isobornyl methacrylate	35%	29.2%
Isobornyl acrylate	35%	29.2%
Isobutyl acrylate	30%	41.6%
Mw	151,000	100,000
PDI	3.6	1.3
Behavior in solution	50% soluble in isododecane	50% soluble in isododecane
Film	Brilliant and non-sticky	Brilliant and non-sticky brittle
Viscosity (25°C)	30,000 cps	100,000 cps

18. The polymer according to the disclosure had a viscosity at 25°C of 30,000 cps, while the viscosity of the comparative polymer is much higher (100,000 cps), with comparable brilliance and non-sticky properties.

19. The film obtained using the comparative polymer was brittle, which was not the case with the film obtained with the polymer according to the disclosure.

20. It is therefore clear that the polymer according to the disclosure is less viscous and forms films that are less brittle than the comparative polymer. These properties render the polymer of the disclosure desirable for cosmetic uses.

Conclusion

21. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further, that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Dated: 6th of april 2010 By: Céline FARCET _____